UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2168	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/001,289	RYS ET AL.
	Examiner	**Art Unit**	
	Greta L. Robinson	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 November 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-5,7-12,14,15,17-23 and 25-32</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5, 7-12, 14-15, 17-23 and 25-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-5, 7-12, 14-15, 17-23 and 25-32 are pending in the present application.

2.   Claims 6, 13, 16, and 24 have been cancelled. Claims 1, 5, 7, 8, 14, 15, 20, 21,

22, 25 and 26 have been amended. Claims 1, 14 and 25 are independent claims.

Response to Arguments

3.   Applicant's arguments filed November 20, 2006 and May 15, 2006 have been

fully considered but they are not persuasive. In the response Applicant argued the major

points: (1) Applicants have amended the claims to more clearly indicate that data in the

hierarchical data source is associated with two different relational tables. Applicant

states by way of "general understanding, some of the data from the hierarchical data

source is stored in a first record associated with a first relational data prior to insertion

into the corresponding relational table and some other of the data is stored in a second

record associated with a second relational table". (2) Lee et al. does not teach

streaming records into two different tables as claimed.

        In response to Applicants arguments the examiner respectfully maintains the

rejection. However Garth et al. reference has been added to the rejection of claims 1-12

to show the copying feature of the loading process taught in Lee et al.. Regarding

argument (1), Lee et al. teaches at least more than one table note depiction of table(s)

element 20 Figure 1; also note abstract "the data is loaded into at least one table of the

relational schema"; paragraph 0096 "the XML document is loaded by the processing

system 10 into the tables making up the first data storage portion"; also note paragraph

0109 creating tables]. Applicant's argument that the reference fails to show certain

features are not cited in independent claims 1, 14 and 25. Although the claims are

interpreted in light of the specification, limitations from the specification are not read into

the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

For example, claim 1 recites, a "method for loading hierarchical data into a first

relational table" [note: claim 1 preamble]. Support for this limitation can be found in Lee

et al. paragraph 0003 "The invention relates to a method and system for automatically loading an

extensible markup language (XML) document, as validated by a document-type definition (DTD), into a

relational database". The step of "storing the data in a record in a first buffer to the

relational table" can be found in Lee et al. at paragraph 0108 which states storing the DTD

18 into the DTM tables 90, 92 and 94 preferably comprises steps of creating and filling the DTDM-Item

table 90 in the metadata tables. Also note paragraph 0101 and Figures 1-1B. Note the

limitation "copying the record from the first buffer to the first relational table" can be

interpreted by the loading of the XML documents into the relational schema paragraph

0110, however newly cited reference Garth et al. teaches "storing the rows in a buffer

and copying the rows from the buffer to the data structure" note abstract, Figure 1, and

column 5 line 42 through column 6 line 21. Applicant states in the remarks section of the

response that by way of "general understanding, some of the data from the hierarchical

data source is stored in a first record associated with a first relational data prior to

insertion into the corresponding relational table and some other of the data is stored in a

second record associated with a second relational table"; however the claims do not

recite this limitation. Regarding argument (2) The examiner has interpreted the meaning

of "streaming records" as "loading " records as set out in the preamble of independent

claims 14 and 25. Lee et al. teaches loading (i.e. streaming) the records see Figure 1

element loader (30), also note 0106.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   Claims 1-5 and 7-12 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. The language of the claims are

directed to an abstract idea and lacks a practical application of a judicial exception (law

of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce

a useful, concrete and tangible result. Specifically, the claimed subject matter does not

produce a tangible result because the claimed subject matter fails to produce a result

that is limited to having real world value rather than a result that may be interpreted to

be abstract in nature as, for example, a thought, a computation, or manipulated data.

More specifically, the claimed subject matter provides for identifying nodes within the

hierarchical data, however there is no link between this concept and the other elements

recited within the body of the claim to enable loading (or copying) of the record from the

buffer to the relational table.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.   Claims 1-5, 11, and 12 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lee et al. US Patent Application Publication No. 2002/0169788 in

view of Garth et al. US Patent 5,873,091.

As per independent claim 1, Lee teaches:

identifying a first node within the hierarchical data corresponding to a first column in the

relational table and second node associated with the first node corresponding to data to be

stored in a row of the table corresponding to the first column [see paragraph 090-093

mapping process identifies location; also note paragraphs 0062, 96 and 0101]; storing the

data in a record in a first buffer associated with the first relational table [paragraph 108];

identifying a third node within the hierarchical data corresponding to a first column in a second

relational table and fourth node associated with the third node corresponding to data to be

stored in a row of the second relational table [note mapping tables 36 paragraph 0101 and

0062]; and copying the record from the first buffer to the first relational table at paragraph 110,

lines 4-6.

Lee teaches identifying a first node within the hierarchical data corresponding to a

first column in the relational table and second node associated with the first node

corresponding to data to be stored in a row of the table corresponding to the first column,

creating a record in a first buffer associated with the first relational table and copying the

record from the first buffer to the first relational table at paragraph 96,108,110. Although Lee

et al. teaches the invention substantially as cited, he does not explicitly state the loading

entails copying the data. Garth et al. teaches executing various high level database

commands such as a load and copy operation [note: abstract "storing the rows in a buffer,

and copying the rows from the buffer to the data structure"; column 1 lines 1-29 "high level

operations include "Load", "Image Copy", "Reorg", and "recover" operations"; column 4 lines

18-25 load processing unit 104]. It would have been obvious to one of ordinary skill at the

time of the invention to have combined Garth et al. with Lee et al. because Garth teaches

that such operations are well known high level database operations [note description of

related art column 1 lines 15-45]. Garth et al. teaches that such operations re-load entail

copying rows back into the table, a load process would be a copy.

As per claim 2 same as claim arguments above and Lee anticipates:

wherein the relational table is part of a relational database at paragraph 99, lines 5-7; also see

paragraph 0100 "the automatic loading of an XML document 12 into relational database 14".

As per claim 3 same as claim arguments above and Lee teaches: wherein

the hierarchical data is XML data [note paragraph 96 and paragraph 0100 "XML

document 12"].

As per claim 4 same as claim arguments above and Lee teaches:

wherein the hierarchical data is identified to correspond to a column in the relational table

by way of a hierarchical schema [see paragraph 54 and 96].

As per claim 5 same as claim arguments above and Lee teaches:

wherein the data is stored in the record of the buffer associated with first table is created after

determining that the parent node of the first node within the hierarchical data. is associated

with the first relational table [paragraph 54, 110].

As per claim 11 same as claim arguments above and Lee anticipates:

wherein the first buffer comprises a disk file at paragraph 110.

As per claim 12 same as claim arguments above and Lee anticipates:

wherein the hierarchical data comprises an XML document at paragraph 96.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claims 14-15, 17-23 and 25-32 are rejected under 35 U.S.C. 102(e) as being

anticipated by Lee et al. US Patent Application Publication No. 2002/0169788.

        As per independent claims 14 and 25 Lee teaches:

receiving a schema describing a relationship of nodes in the hierarchical data to at least one

column in each of the at least two different relational tables, mapping the hierarchical data

based on the schema and creating in a file records from the hierarchical data from nodes

identified as data to be stored in the at least one column in each of the at least two different

relational tables, and streaming the records into the at least two different relational tables by

inserting the records from the file into the at least two different relational tables [note:

paragraph 54-55, 83, and 99].

        Lee teaches receiving a schema describing a relationship of nodes in the

hierarchical data to at least one column in each of the at least two relational tables,

mapping the hierarchical data based on the schema and creating records from the

hierarchical data from nodes associated identified as data to be stored in the at least one

column in each of the at least two relational tables and streaming the records into the at

least two relational tables at paragraph 54-55, 83, and 99.

As per claims 15, 26-27 same as claim arguments above and Lee anticipates: further comprising creating a buffer for each of the at least two relational tables wherein the records are stored before being streamed into the at least two different relational tables at paragraph 110, lines 4-6.

As per claim 17 same as claim arguments above and Lee anticipates:

wherein the hierarchical data is not size constrained at paragraph 83.

As per claims 18 and 28 same as claim arguments above and Lee anticipates: wherein the hierarchical data comprises an XML document at paragraph 96.

As per claims 19 and 29 same as claim arguments above and Lee anticipates: wherein the schema comprises an XML schema at paragraph 83.

As per claims 20 and 30 same as claim arguments above and Lee anticipates: wherein the at least two different tables have a relational relationship at paragraph 83, 87.

As per claims 21 and 31 same as claim arguments above and Lee anticipates: wherein one of the at least one columns is a key field in one of the at least two different tables and foreign key in the other one of the at least two different tables, wherein the method further comprises populating records associated with the at least two different tables with the data associates with the one of the at least one columns at paragraph 54, 99.

As per claims 22 and 32 same as claim arguments above and Lee anticipates:

further comprising streaming the record into the at least two different relational tables

substantially in parallel at paragraph 110.

As per claim 23, wherein the schema is received by way of a network

connection [note: paragraph 0005, paragraph 0095; Figure 1 system 10].

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

    Cox US Patent 6,631,379 B2

    Koseki et al. US Patent 6,732,124 B1

    Mukkamalla et al. US Patent 7,031,987 B2

    Dumas US Patent Application Publication No. 20020035574 A1

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Greta L. Robinson whose telephone number is

(571)272-4118. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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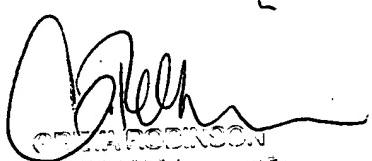
Greta Robinson
Primary Examiner
January 25, 2007